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Amendment under Article 34

AMENDMENT

(Amendment under Article 11 Japanese Law)

To: Commissioner of the Patent Office

1 Identification of the International Application

PCT/JP2004/005548

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4 Item to be Amended CLAIMS

5 Subject matter of Amendment

- (1) Claims 1, 9, 11, 12, 14 and 15 should be amended.**
- (2) Claims 2 and 10 should be cancelled.**

6 List of Attached Document

- (1) Replacement sheets of pages 43 to 46 of the claims**

CLAIMS

1. (Amended) A polarizer: comprising a polyvinyl alcohol-based film which is at least dyed with at least iodine and uniaxially stretched,

having a single transmittance of 43% or more, a polarizing efficiency of 99.9% or more,

a dichroic ratio of 30 or more, wherein the dichroic ratio is calculated from a parallel transmittance (T_p) and a crossed

transmittance (T_c) at a wavelength of 440 nm according to the following formula:

dichroic ratio = $\{\log_{10}(1/k_2)\} / \{\log_{10}(1/k_1)\}$, where

$k_1 = 1/2 \cdot \sqrt{2 \times [(T_p + T_c)^{1/2} + (T_p - T_c)^{1/2}]}$ and

$k_2 = 1/2 \cdot \sqrt{2 \times [(T_p + T_c)^{1/2} - (T_p - T_c)^{1/2}]}$, .

and, an iodine content is of 1.5 to 2.5% by weight and a potassium content is of 0.2 to 0.6% by weight.

2. (Deleted).

3. A method of manufacturing polarizer, comprising the steps of:

dyeing a polyvinyl alcohol-based film with iodine;

uniaxially stretching the iodine-dyed polyvinyl alcohol-based film in an aqueous boric acid solution containing an iodide at a concentration of 4% by weight or more; and

subsequently washing the film with an aqueous solution containing an iodide at a concentration of 0.8% by weight or more.

4. The method of manufacturing polarizer according to Claim 3, wherein the aqueous boric acid solution contains the

iodide at a concentration of 4 to 12% by weight in the uniaxially stretching step.

5 **5. The method of manufacturing a polarizer according to Claim 3 or 4, wherein the aqueous iodide solution contains the iodide at a concentration of 0.8 to 2.5% by weight in the washing step.**

10 **6. The method of manufacturing polarizer according to any one of Claims 3 to 5, further comprising the step of drying the film at a temperature of 70°C or lower after the step of washing with the aqueous iodide solution.**

15 **7. The method of manufacturing polarizer according to any one of Claims 3 to 6, wherein the iodide is potassium iodide.**

20 **8. The method of manufacturing polarizer according to any one of Claims 3 to 7, wherein the iodine dyeing step is performed together with the stretching step.**

25 **9. (Amended) The method of manufacturing polarizer according to any one of Claims 3 to 8, wherein the resulting polarizer has a single transmittance of 43% or more, a polarizing efficiency of 99.9% or more ,and a dichroic ratio of 30 or more, wherein the dichroic ratio is calculated from a parallel transmittance (Tp) and a crossed transmittance (Tc) at a wavelength of 440 nm according to the following formula:**

30 **dichroic ratio={log₁₀(1/k₂)} / {log₁₀(1/k₁)}, where
 $k_1 = 1/2 \cdot \sqrt{2 \times [(T_p + T_c)^{1/2} + (T_p - T_c)^{1/2}]}$ and**

$$k_2 = 1/2 \cdot \sqrt{2 \times [(T_p + T_c)^{1/2} - (T_p - T_c)^{1/2}]},$$

and, an iodine content is of 1.5 to 2.5% by weight and a potassium content is of 0.2 to 0.6% by weight.

5 **10. (Deleted).**

11. (Amended) A polarizer obtained by the method according to any one of Claims 3 to 9.

10 **12. (Amended) A polarizing plate, comprising the polarizer according to Claim 1 or 11 and a transparent protective film provided on at least one side of the polarizer.**

13. The polarizing plate according to Claim 12, wherein a single transmittance is of 43% or more, a polarizing efficiency is of 99.9% or more, and

a dichroic ratio is of 30 or more, wherein the dichroic ratio is calculated from a parallel transmittance (T_p) and a crossed transmittance (T_c) at a wavelength of 440 nm according to the following formula:

dichroic ratio = $\{\log_{10}(1/k_2)\} / \{\log_{10}(1/k_1)\}$, where

$k_1 = 1/2 \cdot \sqrt{2 \times [(T_p + T_c)^{1/2} + (T_p - T_c)^{1/2}]}$ and

$k_2 = 1/2 \cdot \sqrt{2 \times [(T_p + T_c)^{1/2} - (T_p - T_c)^{1/2}]}$.

25 **14. (Amended) An optical film, comprising the polarizer according to Claim 1 or 11 or the polarizing plate according to Claim 12 or 13 and at least one other optical layer laminated with the polarizer or the polarizing plate.**

30 **15. (Amended) An image display, comprising at least one**

piece of the polarizer according to Claim 1 or 11, the polarizing plate according to Claim 12 or 13, or the optical film according to Claim 14.